





August 11, 2005

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

TRANSMITTAL OF SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Re:

U.S. Patent Application No. 10/767,686 filed 1/29/2004

Applicant: Ai-Zhi Piao and Chung Shih

Title: MIXTURES OF VARIOUS TRIBLOCK POLYESTER

POLYETHYLENE GLYCOL COPOLYMERS HAVING IMPROVED

GEL PROPERTIES

Group Art Unit: 1615

Attorney Docket No. T8275.DIV

Sir/Madam:

Transmitted herewith for filing and pursuant to 37 C.F.R. §§ 1.56 and 1.97 is an Information Disclosure Statement. Enclosed also are the following designated documents, as required under 37 C.F.R. §§ 1.97 and 1.98:

\boxtimes	Form PTO/SB/08A and PTO/SB/08B list of 35 references submitted for consideration.
	Legible copies of the listed references or their relevant portions.
	Legible copies of the listed <u>non-patent documents and foreign documents</u> or their relevant portions are included.
	Copies of U.S. patents and/or publications are not included pursuant to the Official Gazette Notice, dated Aug. 5, 2003, waiving the requirement of 37 C.F.R. 1.98(a)(2)(i).
	All English translations of each non-English reference, if any, within the possession custody, control or availability of anyone designated in 37 C.F.R. § 1.56(c) (see 37 C.F.R. § 1.98(c)).

Commissioner for Patents Page 2

	llowing are included within the Information Disclosure Statement if applicable and as 37 C.F.R. § 1.98:
	Concise explanation of relevance of each reference not in English and unaccompanied by an English translation.
	Statement that certain listed references not enclosed are substantially cumulative of an enclosed reference.
	Statement that certain listed references not enclosed were previously cited by or submitted to the Office in prior application no. 09/559,799, filed on 4/27/2000, which is relied upon for an earlier filing date under 35 U.S.C. § 120.
In order if required, is	er to secure consideration of the items designated above, one or more of the following, also enclosed:
	Statement under 37 C.F.R. § 1.97(e)(1) or (2).
	Check No. 22846, which includes the amount of \$180.00 (amount in § 1.17(p)) constituting the submission fee set forth in 37 C.F.R. § 1.17(p).
	event that 37 C.F.R. § 1.97(c) applies and the Examiner is not satisfied that the ets the requirements of 37 C.F.R. § 1.97(e), or in any other event remediable by a fee,

please credit any over payment or charge any additional fees to Deposit Account No. 20-0100 of the

Respectfully submitted,

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M. Wayne Western Attorney for Applicant

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MWW/WC/jmw

undersigned.

ART UNIT:

1615

EXAMINER:

APPLICANT:

Piao et al

SERIAL NO.:

10/767,686

FILED:

01/29/2004

CONFRM. NO.:

FOR: MIXTURES OF VARIOUS TRIBLOCK

POLYESTER POLYETHYLENE GLYCOL

COPOLYMERS HAVING IMPROVED

GEL PROPERTIES

DATE OF DEPOSIT: (MA)

I hereby certify that this paper or fee (along with any paper or fee referred to as being attached or enclosed) is being deposited with the United States Postal Service with sufficient postage on the date indicated above and is addressed to: Mail Stop Amendment,

Commissioner for Patents, P.O. Box 1450,

Alexandria, VA 22313-1450.

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir/Madam:

Please find, pursuant to 37 C.F.R. § 1.98(a)(1), the enclosed Form PTO/SB/08A and PTO/SB/08B which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). Applicant respectfully submits that this Information Disclosure Statement is filed pursuant to:

37 C.F.R. § 1.97 (b)(1) or (3), within three months of the filing date of the application, or before a first office action on the merits, whichever occurs last;

37 C.F.R. § 1.97 (c), after a first office action on the merits, but before a Final Office Action or a Notice of Allowance, whichever occurs first, and is accompanied by either 1) a statement in accordance with 37 C.F.R. § 1.97 (e), or 2) the fee set forth in § 1.17(p); or

37 C.F.R. § 1.97 (d), after a Final Office Action or Notice of Allowance, whichever occurs first, but on or before payment of the issue fee, and is accompanied by both 1) a statement in accordance with 37 C.F.R. § 1.97(e), and 2) the fee set forth in § 1.17(p).

While no representation is made that any of these references may be "prior art" within the meaning of that term in accordance with 35 U.S.C. §§ 102 or 103, the enclosed list of references is disclosed so as to comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the references listed, together with any other references which may have been previously submitted or listed, are the closest to the claimed invention (taken in its entirety) of which the undersigned is presently

aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly
withheld.
A legible copy of each listed U.S. Patent or publication (or relevant portion thereof
which was not previously submitted to, or cited by, the Patent Office is enclosed pursuant to 3'
C.F.R. §§ 1.97 and 1.98.
A legible copy of each of the listed non-patent literature and foreign documents o
their relevant portions is enclosed.
Copies of cited U.S. patents and/or publications are NOT enclosed pursuant to the
Official Gazette Notice, dated Aug. 5, 2003, waiving the requirement of 37 C.F.R. § 1.98(a)(2)(i).
Copies of the references listed in the accompanying Form PTO/SB/08A ANI
PTO/SB/O8B are NOT enclosed because, under 37 C.F.R. § 1.98(d), they were previously cited by
or submitted to the Office in application number 09/559,799, which is relied upon for an earlie
filing date under 35 U.S.C. § 120.
For all listed references that are not either in the English language, or accompanied by

For all listed references that are not either in the English language, or accompanied by a translation into English, a concise explanation of relevance as required under 37 C.F.R. § 1.98(a)(3) is enclosed attached to each.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or to credit any overpayment to Deposit Account No. 20-0100.

Dated this **3/s** day of August, 2005.

Respectfully submitted,

m. sammet

M. Wayne Western Attorney for Applicant

Registration No. 22,788

THORPE NORTH & WESTERN, LLP Customer No. 20,551 P.O. Box 1219 Sandy, Utah 84091-1219 Telephone: (801) 566-6633

MWW/WC/jmw Enclosure

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449/PTO Application Number 10/767,686 01/29/2004 INFORMATION DISCLOSURE Filing Date STATEMENT BY APPLICANT First Named Inventor Ai-Zhi Piao (Use as many sheets as necessary) Art Unit 1615 Examiner Name T8275.DIV

Attorney Docket Number

of 1

Sheet

			U.S. PATENT DO		
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant
Initials*	No.¹	Number-Kind Code ^{2 (if known)}	MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear
		4,438,253	3/20/1984	Casey et al.	
		4,526,938	7/2/1985	Churchill et al.	
		4,652,441	3/24/1987	Okada et al.	
		4,745,160	5/17/1988	Churchill et al.	
		4,892,903	1/9/1990	Himes	
		4,938,763	7/3/1990	Dunn et al.	
	<u> </u>	5,100,669	3/31/1992	Hyon et al.	
		5,278,202	1/11/1994	Dunn et al.	
		5,324,519	6/28/1994	Dunn et al.	
		5,330,768	7/19/1994	Park et al.	
		5,643,605	7/1/1997	Cleland et al.	
		5,674,192	10/7/1997	Sahatjian et al.	
		5,702,717	12/30/1997	Cha et al.	
		5,814,340	9/29/1998	Labrie et al.	
		5,939,485	8/17/1999	Bromberg et al.	
		6,004,573	12/21/1999	Rathi et al.	
		6,117,949	9/12/2000	Rathi et al.	

	FOREIGN PATENT DOCUMENTS								
Examiner	Cite	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines, Where				
Initials*	No.1	Country Code ³ - Number ⁴ - Kind Code ⁵ (If known)	Date MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear	T ⁶			
		WO 93/24150	12-09-1993	Zeneca Limited					
		EP 0258780	03-09-1988	American Cyanamid					
				Company					
		EP 0224389	06-03-1987	Raychem Corporation					
		EP 0092918	11-02-1983	Imperial Chemical					
				Industries PLC		1			

Examiner	Date	
Signature	Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentially is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Under the Paperwork Reduction 1955, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

				Complete if Known		
	Substitute for form 1449/PTO		Application Number	10/767,686		
_			ON DISCLOSURE	Filing Date	01/29/2004	
	STATEMENT BY APPLICANT (Use as many sheets as necessary)		First Named Inventor	Ai-Zhi Piao		
	(030 43	inany	sheets as necessary)	Art Unit	1615	
				Examiner Name		
Sheet	1	of	2	Attorney Docket Number	T8275.DIV	

		NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	ite Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book,				
	1	AS Sawhney and JA Hubbell, <u>Rapidly Degraded Terpolymers of dl-Lactide, Glycolide, and εCaprolactone with Increased Hydrophilicty by Copolymerization with Polyethers</u> . J. Biomed. Mat. Res., 24, 1397-1411 (1990).				
	2	AS Sawhney, CP Pathak, and JA Hubbell, <u>Bioeroedible Hydrogels Based on Photopolymerized Poly(ethylene glycol)-c9-poly(α-hydroxy acid) Diacrylate Macromers</u> , Macromolecules, 26(4), 581-589: 1993.				
	3	T Matsuda, N Motomura, and T Oka, Angiopeptin as a Potent Inhibitor of Myointimal Hyperplasia: Systemic Injection and Local Administration via Impregnation in a Biodegradable Polymeric Gel, ASAIO Journal, M512-M517(1993).				
	4	L Martini et al., <u>Micellisation and Gelation of Triblock Copolymer of Ethylene Oxide and ε-Caprolactone, CLE, CL in Aqueous Solution</u> , J. Chem Soc. Faraday Trans., 90(13), 1961-1966: 1994.				
	5	TP Johnston and SC Miller, Inulin Diposition Following Intramuscular Administration of an Inulin/Poloxamer Gel Matrix, J. Parenteral Science & Technology, 43(6), November-December 1989.				
	6	TP Johnston et al., <u>Sustained Delivery of Interleukin-2 from a Poloxamer 407 Gel Matrix Following Intraperitoneal Injection in Mice</u> , Pharmaceutical Research 9(3), 1992.				
	7	K Morikawa et al., Enhancement of Therapeutic Effects of Recombinant Interleukin 2 on a Transplatantable Rat Fibrosarcoma by the Use of a Sustained Release Vehicle, Pluronic Gel, Cancer Research, 47 pp. 37-41, January 1, 1987.				
	8	TP Johnston and SC Miller, <u>Toxicological Evaluation of Poloxamer Vehicles for Intramuscular Use</u> , J. Parenteral Science and Technology, 39(2), March-April 1985.				
	9	L. Youxin, C Volland, and T Kissel, In-Vitro Degradation and Bovine Serum Albumin Release of the ABA Triblock Copolymers Consisting of poly (L(+)lactic acid-co-glycolic acid) A-Blocks attached to Central Polyoxyethylene B-Blocks, J. Controlled Release, 32: 1994.				
	10	L. Youxin and T Kissel, Synthesis and Properties of Biodegradable ABA Triblock Copolymers Consisting of poly (L-lactic acid) or poly (L-lactic-co-glycolic acid) A-Blocks attached to Central Poly(oxyethylene) B-Blocks, J. Controlled Release, 27; 1993.				

Examiner	Date	
Signature	Considered	

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentially is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. Send to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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				Examiner Name		
Sheet	2		2	Attorney Docket Number	T8275.DIV	

	0	NON PATENT LITERATURE DOCUMENTS	r -			
Examiner Ci Initials* No		Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				
	11	KA Fults and TP Johnston, Sustained-Release of Urease from a Poloxamer Gel Matrix, J. Parenteral Science & Technology, 44(2), March-April 1990.				
	12	Byeongmoon Jeong, et al, "Biodegradable Block Copolymers as Injectable Drug-delivery Systems", Letters to Nature, Vol. 388, 28 August 1997.				
	13 _	A Chenite, et al, "Novel Injectable Neutral Solutions of Chitosan Form Biodegradable Gels In Situ", Biomaterials, 21 (2000) 2155-2161.				
	14	E. Ruel-Gariepy, et al, "Thermosensitive Chitosan-based Hydrogel Containing Liposomes for the Delivery of Hydrophilic Molecules", Journal of Controlled Release, 82 (2002) 373-383.				

Examiner	Date	
Signature	Considered	

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